

# PERFORMANCE SPECIFICATION SHEET

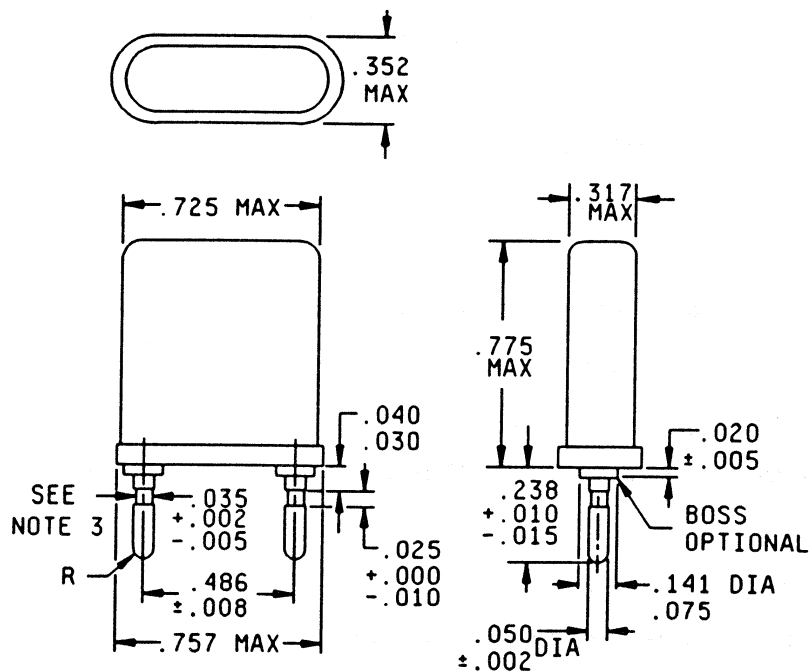
## CRYSTAL UNIT, QUARTZ, CR75/U

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification and MIL-PRF-3098.

Pertinent characteristics: 50 MHz to 125 MHz; fifth mechanical overtone; controlled; series resonance.

Inches	mm
.002	.05
.005	.13
.008	.20
.010	.25
.015	.38
.020	.51
.025	.64
.030	.76
.035	.89
.040	1.02
.050	1.27
.075	1.91
.141	3.58
.238	6.05
.317	8.05
.352	8.94
.486	12.34
.725	18.42
.757	19.23
.775	19.69



### NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. The pin undercut may be omitted.
4. Marking to be in accordance with MIL-PRF-3098.

FIGURE 1. Crystal unit - CR75/U.

MIL-PRF-3098/52F

REQUIREMENTS:

Dimensions, marking, and configuration: See figure 1.

Frequency range: 50.0 MHz to 125 MHz, inclusive.

Frequency tolerance:

Operating temperature range:  $\pm 10$  parts per million (ppm).

Room temperature:  $\pm 70$  ppm.

Equivalent resistance:  $\pm 40$  ohms, maximum.

Mode of oscillation: Fifth mechanical overtone.

Reference temperature:  $+75^{\circ}\text{C} \pm 1^{\circ}\text{C}$ .

Temperature ranges:

Operable temperature range:  $-55^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$  and  $+80^{\circ}\text{C}$  to  $+90^{\circ}\text{C}$ , inclusive.

Operating temperature range (controlled):  $+70^{\circ}\text{C}$  to  $+80^{\circ}\text{C}$ , inclusive.

Drive level: 1.0 mW maximum.

Resonance: Series.

Capacitance, shunt: 7.0 pF, maximum.

Shock (specified pulse):

Frequency change permitted:  $\pm 5$  ppm.

Equivalent resistance change permitted:  $\pm 10$  percent.

Vibration: Method 201 of MIL-STD-202.

Frequency change permitted:  $\pm 5$  ppm.

Equivalent resistance change permitted:  $\pm 10$  percent.

Thermal shock:

Frequency change permitted:  $\pm 5$  ppm.

Equivalent resistance change permitted:  $\pm 10$  percent.

Aging:

Frequency change permitted:  $\pm 5$  ppm.

MIL-PRF-3098/52F

Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

Custodians:

Army - CR  
Navy - EC  
Air force - 85

Review activities:

Army - AR, MI, SM  
Navy - AS, MC, SH  
Air Force - 17, 19

Preparing activity:

Army - CR

Agent:

DLA - CC

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